

The FCC should open the 3650-3700 MHz spectrum band for unlicensed use for the following reasons:

(1) It will encourage municipal and community wireless mesh networks. Much of the progress in wide-area mesh networking in the 2.4 GHz space arose out of the open, unlicensed nature of the band. It encourages experimentation and deployment, testing and further development. Now, there is even open source mesh networking software that can be easily installed on off-the-shelf mesh nodes. This means the cost of deploying a municipal wireless broadband network will decline even more, thus allowing more communities to roll out networks where there is no broadband. Barriers to entry must remain low. In this space, investment happens without big corporations or well-funded start ups. Rules that prohibit or limit the ability of multiple entrants will make it next to impossible for open source mesh systems to deploy.

(2) The result of all this experimentation and deployment of mesh networks is that many communities are now using citywide wireless broadband networks for public safety (police, fire department and first responders), automated gas meter reading, remote monitoring of utilities, transportation applications and more. Opening up this band to unlicensed use would encourage even more people to develop applications.

(3) Low power is more important in many communities than high-power. The FCC must not sacrifice the possibility of low power mesh in the 3650-3700 MHz band for the sake of high-power in the band. Ideally, the FCC should have rules that permit both, as high power is necessary for backhaul and can be useful in point to point. But if the FCC insists on choosing, it should keep the low power option and implement high power when cognitive radio technology has improved.

(4) Above all, the FCC must not establish exclusive licensing or "first in time, first in right" site licensing that will make it impossible for communities to deploy numerous open source solutions. There is a grave danger that a big company, such as a telco that wants to block municipal wireless broadband networks, would try to be "first in time" just to stymie the rollout of a network by a municipality. The telcos are now funding a state-by-state drive to ban municipal broadband deployment. Establishing a licensing scheme would give them additional ammunition to stop the rollout of affordable broadband (through cheap, open source mesh networks) across the US.

Submitted by: Esmeralda Vos, founder of Muniwireless.com. I have been running Muniwireless.com since June 2003 and it has become the online portal for news and information about municipal wireless broadband networks around the world. I am expert on citywide and community wireless networks, and have been following deployments in the US and abroad. My primary interest in seeing the FCC open this band to unlicensed use is to encourage the deployment of cheap, robust wide-area broadband networks; in most cases, the cheapest way is via wireless mesh. Having broadband is necessary to economic development.